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APPLICATION N	O. F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/624,332	10/624,332 07/22/2003		David R. Hembree	3592.8US (97-0321.08/US)	6977	
24247	7590	05/16/2006		EXAMINER		
TRASK BRITT				LEE, CHEUNG		
P.O. BOX 2550 SALT LAKE CITY, UT 84110		UT 84110		ART UNIT	PAPER NUMBER	
0.121 2				2812		
				DATE MAILED: 05/16/2006		

Please find below and/or attached an Office communication concerning this application or proceeding.

## Advisory Action Before the Filing of an Appeal Brief

Application No.	Applicant(s)	
10/624,332	HEMBREE, DAVID R.	
Examiner	Art Unit	
Cheung Lee	2812	

	Cheung Lee	2812	
The MAILING DATE of this communication appe	ars on the cover sheet with the	correspondence add	ress
THE REPLY FILED 26 April 2006 FAILS TO PLACE THIS APP		·	
<ol> <li>The reply was filed after a final rejection, but prior to or on this application, applicant must timely file one of the follow places the application in condition for allowance; (2) a Not a Request for Continued Examination (RCE) in compliant time periods:</li> <li>The period for reply expires 3 months from the mailing date</li> </ol>	the same day as filing a Notice of ving replies: (1) an amendment, af tice of Appeal (with appeal fee) in se with 37 CFR 1.114. The reply m	Appeal. To avoid aba fidavit, or other eviden compliance with 37 Cl	nce, which FR 41.31; or (3)
b) The period for reply expires on: (1) the mailing date of this A no event, however, will the statutory period for reply expire it	Advisory Action, or (2) the date set forth	•	
Examiner Note: If box 1 is checked, check either box (a) or TWO MONTHS OF THE FINAL REJECTION. See MPEP 7	(b). ONLY CHECK BOX (b) WHEN TH	•	
Extensions of time may be obtained under 37 CFR 1.136(a). The date have been filed is the date for purposes of determining the period of ex under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the set forth in (b) above, if checked. Any reply received by the Office later may reduce any earned patent term adjustment. See 37 CFR 1.704(b) NOTICE OF APPEAL	on which the petition under 37 CFR 1. tension and the corresponding amount shortened statutory period for reply original three months after the mailing date.	of the fee. The appropri ginally set in the final Offi	iate extension fee ce action; or (2) a
2. The Notice of Appeal was filed on A brief in comp filing the Notice of Appeal (37 CFR 41.37(a)), or any exte a Notice of Appeal has been filed, any reply must be filed	nsion thereof (37 CFR 41.37(e)), to	o avoid dismissal of th	
<ul> <li>AMENDMENTS</li> <li>3.  The proposed amendment(s) filed after a final rejection,</li> <li>(a)  They raise new issues that would require further co</li> <li>(b)  They raise the issue of new matter (see NOTE below)</li> <li>(c)  They are not deemed to place the application in befappeal; and/or</li> </ul>	nsideration and/or search (see NOw);	TE below);	
(d) They present additional claims without canceling a NOTE: (See 37 CFR 1.116 and 41.33(a)).	corresponding number of finally re	jected claims.	
4. The amendments are not in compliance with 37 CFR 1.1.  5. Applicant's reply has overcome the following rejection(s)		ompliant Amendment (	(PTOL-324).
6. Newly proposed or amended claim(s) would be all		timely filed amendme	ent canceling the
non-allowable claim(s).  7. For purposes of appeal, the proposed amendment(s): a) how the new or amended claims would be rejected is profit The status of the claim(s) is (or will be) as follows:  Claim(s) allowed:  Claim(s) objected to:		ill be entered and an e	explanation of
Claim(s) rejected: Claim(s) withdrawn from consideration:			
AFFIDAVIT OR OTHER EVIDENCE			
8. The affidavit or other evidence filed after a final action, but because applicant failed to provide a showing of good an was not earlier presented. See 37 CFR 1.116(e).	•	•••	
9. The affidavit or other evidence filed after the date of filing entered because the affidavit or other evidence failed to showing a good and sufficient reasons why it is necessarily	overcome <u>all</u> rejections under appe	al and/or appellant fai	ils to provide a
10. The affidavit or other evidence is entered. An explanation REQUEST FOR RECONSIDERATION/OTHER	n of the status of the claims after e	ntry is below or attach	ned.
11. The request for reconsideration has been considered but see attached examiner's response.	it does NOT place the application i	n condition for allowar	nce because:
12. ☑ Note the attached Information Disclosure Statement(s).  13. ☐ Other:	(PTO/SB/08 or PTO-1449) Paper I	No(s). <u>3-3-06</u>	

HA NGUYEN
PRIMARY EXAMINED

## Response to Arguments

Applicant's arguments with regard to the rejection under 35 U.S.C. 103(a) have been fully considered, but they are not deemed to be persuasive for at least the following reasons.

- 1. With respect to claims 1, 3 and 5, applicant argues that no suggestion or motivation can be found for combining the teachings of Desai, Kim and Toy. However, the motivation for combining the references were given in the rejection, for example, the motivation for combining Desai with Toy would have been to achieve a remarkable heat resistance, and the motivation for combining Desai with Kim would have been to achieve a remarkable protection of all sides of the semiconductor die while dissipating heat. Note that the test of obviousness under 35 USC 103 does not require an expressed suggestion of the claimed invention in the prior art. All that is required to show obviousness is that the claimed invention would have been made obvious by applying knowledge clearly present in the prior art. *In re Rosselet*, 347 F.2d 847, 146 USPQ 183 (CCPA 1965); *In re Sheckler*, 438 F.2d 999, 168 USPQ 716 (CCPA 1971); *In re Sovish*, 769 F.2d 738, 226 USPQ 771 (Fed. Cir. 1985). The expectation of some advantage is the strongest rationale for combining references (MPEP 2144).
- 2. Applicant argues that the inclusion of a hole in the Desai's die clip would act as a vent to allow any underfill material being injected into the gap to escape therefrom preventing the Desai's die clip from filling with the underfill material. However, Kim discloses wherein the hole should be sealed to prevent any leaks (col. 6, lines 27-45).

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Besides the underfill material has to be completely filled the gap before escaping to the hole.

3. Applicant also argues that in contrast to the claimed inventions of presently amended independent claims 1, 3 and 5, the combined teachings of Desai, Kim and Toy merely teach or suggest a die clip filled with mineral oil wherein the semiconductor die is spaced from the cap having no contact therewith. However, the claimed limitation does not include that semiconductor die has to be in contact with the cap. Also, note that applicant's argument is largely directed to what the cited reference teaches individually. However, it is axiomatic that one cannot show nonobviousness by attacking references individually where the rejection, as here, is based on a combination of references. In re Young, 403 F.2d 754, 159 USPQ 725 (CCPA 1968); In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). For example, applicant argues that Kim does not disclose a cap placed on the semiconductor die with an adhesive in between. However, Desai, not Kim, is employed in the rejection to show that feature of the claimed process. Besides the Desai's die clip can meet the claimed limitation in broader interpretation wherein the die clip surrounds the semiconductor die with an opening, but the examiner shows that Kim's cap can be used too. Therefore, all the limitations of claims 1, 3 and 5 are met.

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheung Lee whose telephone number is 571-272-5977.

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The examiner can normally be reached on Monday through Friday from 8:30AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Lebentritt can be reached on 571-272-1873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cheung Lee

May 10, 2006

HA NGUYEN
PRIMARY EXAMINER